MVX Plus 128 VGA A

12x8 VGA and Stereo Audio Matrix Switcher with ADSP™ and IP Link®

FEATURES

- **Inputs: VGA on female 15-pin HD connectors; audio on captive screw connectors**
- **Outputs: Video on female 15-pin HD connectors; audio on captive screw connectors**
- **300 MHz (-3 dB) RGB video bandwidth, fully loaded** — Designed for routing most common high resolution computer-video rates without signal degradation. The MVX Plus 128 VGA A provides 300 MHz (-3dB) of RGB video bandwidth at full performance capacity when one input signal drives all outputs.
- **ADSP™ - Advanced Digital Sync Processing technology** — An exclusive, all-digital process that regenerates the sync signal waveform and restores sync level to 5.0 V p-p, TTL specifications. This ensures a stable sync signal for improved signal compatibility with any LCD, DLP, plasma, or other digital display device.
- **DSVP™ - Digital Sync Validation Processing** — Verifies active sources by polling all inputs for valid sync signals. DSVP then transmits the horizontal and vertical sync information to the user through the serial or IP Link ports.
- **RGBHV switching** — Switches separate horizontal and vertical sync to ensure proper sync polarity, providing a more stable image. Fully compatible with RGBS, RGsB, HDTV, component video, S-video, and composite video signals.
- **Buffered I/O** — Each input and output is individually buffered to provide maximum performance and virtually no crosstalk or signal interference between channels.
- **Triple-Action Switching™ for RGB Delay** — Blanks the screen when switching to a new source. The new sync signals precede the RGB signals, so there is no glitch shown during the transition. The time delay between the RGB and sync signals is adjustable up to five seconds through front panel, IP Link, or serial control.
- **Balanced and unbalanced audio** — Balanced or unbalanced stereo audio signals are output on captive screw connectors.
- **Audio input gain and attenuation** — Allows users to set the level of gain or attenuation for each audio input channel, eliminating noticeable volume differences when switching between sources.
- **Audio breakaway** — Provides the capability to break an audio signal away from its corresponding video signal, allowing the audio and video signals from one source to be switched to different destinations.
- **Audio output volume adjustment and muting** — Can be set dynamically for each channel through the front panel, IP Link, or serial control, eliminating the need for an audio preamplifier in many system designs.
- **View I/O mode** — Users can easily view which inputs and outputs are actively connected.
- **I/O grouping** — Allows the matrix switcher to be virtually divided into smaller sub-switchers, making installation and control easier. I/O grouping allows specific outputs, like those designated for a specific video format, to be grouped together.
- **Rooming** — The matrix switcher can be programmed to group-selected outputs into specific "rooms," each with its own set of unique presets. A total of 10 presets each, for up to 10 rooms, are available.
- **32 global presets** — Frequently used I/O configurations may be saved and recalled either from the QS-FPC™ - QuickSwitch Front Panel Controller, IP Link, or serial control. This time-saving feature allows I/O configurations to be set up and stored in memory for future use.
- **QS-FPC™ - QuickSwitch Front Panel Controller** — Provides a discrete button for each input and output, allowing for simple, intuitive operation.
- **Tri-color, backlit buttons can be custom labeled for easy identification** — Can be custom labeled for easy identification. The buttons illuminate red, green, or amber, depending on function, for ease of use in low-light environments.
- **Front panel security lockout** — Prevents unauthorized use in non-secure environments. In lockout mode, a special button combination is required to operate the switcher from the front panel controller.
- **IP Link® Ethernet monitoring and control** — Engineered to meet the needs of professional A/V environments, IP Link enables the to be proactively monitored and managed over a LAN, WAN, or the Internet, using standard TCP/IP protocols. IP Link provides for remote selection of input and output ties, adjustment and control of audio input and output levels, and advanced system diagnostics.
- **IP Link enhanced diagnostics** — Provides for monitoring of internal product operating temperature and power supply voltages, e-mail notification of input signal loss, and other critical service information.
- **RS-232 and RS-422 serial control port** — Using serial commands, the MVX Plus 128 VGA A can be controlled and configured via the included Windows-based control software, or integrated into third-party control systems. Extron products use the SIS™ - Simple Instruction Set command protocol, a set of basic ASCII code commands that allow for quick and easy programming. The RS-232 and RS-422 port also makes it easy to install firmware updates.
- **Control software** — Provides a graphical, drag-and-drop interface for I/O configuration and other customization functions via RS-232 and RS-422 remote control. This software also offers an emulation mode for configuration of an offsite matrix switcher; the I/O configuration may be saved for future downloading to the matrix switcher.
- **Optional control panels and keypads** — Provide the flexibility to control a MVX Plus 128 VGA A matrix switcher from a remote location.
- **Rack mountable** — The MVX Plus 128 VGA A is housed in a compact 2U, 19-inch wide, rack-mountable metal enclosure.
- **Internal international power supply** — The 100-240VAC, 50/60 Hz, universal power supply provides worldwide power compatibility.

Optional MKP 3000 X-Y Control Panel

MODEL	VERSION DESCRIPTION	PART #
MVX Plus 128 VGA A	12x8 VGA and Stereo Audio	60-788-01

Continued →

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Extron®

MVX Plus 128 VGA A

DESCRIPTION

The **MVX Plus 128 VGA A** is a 12 input, eight output matrix switcher designed to route high resolution computer-video and stereo audio signals. It offers the performance of a wideband switcher with the convenience of 15-pin HD connectors for all computer-video input and output connections. Balanced or unbalanced stereo audio is input and output on captive screw connectors. Using pre-terminated cable assemblies, such as Extron's VGA Cables, eliminates crimping and makes installations faster and easier.

Housed in a compact, 2U metal enclosure, the MVX Plus 128 VGA A includes RS-232 and IP Link® Ethernet control capability. A standard QS-FPC™ - QuickSwitch Front Panel Controller allows for simple, touch-of-a-button input and output selection directly from the front panel. The flexibility to control the matrix switcher from a remote location is also possible using the optional MKP 2000 and MKP 3000 Series Matrix Switcher X-Y Remote Control Panels.

The MVX Plus 128 VGA A features exclusive Extron technologies, such as ADSP™ - Advanced Digital Sync Processing, an all-digital process that corrects and restores the sync signal as it passes through the switcher, and DSVP™ - Digital Sync Validation Processing for verifying active sources.

SPECIFICATIONS

VIDEO

Routing	12 x 8 matrix
Gain	Unity
Bandwidth	>300 MHz (-3 dB) , fully loaded 0 - 10 MHz: no more than +0.1 dB to -0.1 dB 0 - 130 MHz: no more than +0.8 dB to -0.8 dB
Crosstalk	-80 dB @ 1 MHz, -55 dB @ 10 MHz, -45 dB @ 30 MHz, -37 dB @ 100 MHz
Switching speed	200 ns (max.)

VIDEO INPUT

Number / Signal type	12 RGBHV, RGBS, RGsB, RsGsBs, HDTV component video, component video, S-video, composite video
Connectors	12 female 15-pin HD
Nominal level	1 VP-p for Y of component video and S-video, and for composite video 0.7 Vp-p for RGB and for R-Y and B-Y of component video 0.3 Vp-p for C of S-video
Minimum / Maximum levels	Analog: 0.5 V to 2.0 Vp-p with no offset
Impedance	75 ohms
Return loss	<-30 dB @ 5 MHz
DC offset (max. allowable)	1.5 V

VIDEO OUTPUT

Number / Signal type	8 RGBHV, RGBS, RGsB, HDTV component video, component video, S-video, composite video (follows input type)
Connectors	8 female 15-pin HD
Nominal level	1 VP-p for Y of component video and S-video, and for composite video 0.7 Vp-p for RGB and for R-Y and B-Y of component video 0.3 Vp-p for C of S-video
Minimum / Maximum levels	0 V to 2.0 Vp-p (follows input)
Impedance	75 ohms
Return loss	-30 dB @ 5 MHz
DC offset	±5 mV with input at 0 offset
Switching type	Triple-Action™

SYNC

Input type	RGBHV, RGBS, RGsB, RsGsBs
Output type	RGBHV, RGBS, RGsB, RsGsBs (follows input) Tri-level on Y, R-Y, B-Y channels (component video 720p, 1080i, 1080p) Bi-level on Y channel (for all other component video rates)
Input level	0.5 V to 5.0 Vp-p, 4.0 Vp-p normal
Output level	AGC to TTL: 4.0 V to 5.0 Vp-p, unterminated
Input impedance	510 ohms
Output impedance	75 ohms
Max input voltage	5.0 Vp-p
Max. propagation delay	30 ns
Max. Rise / Fall time	4 ns
Polarity	Positive or negative (follows input)

AUDIO

Routing	12 x 8 stereo matrix
Gain	Unbalanced output: -6 dB; balanced output 0 dB
Frequency response	20 Hz to 20 kHz, ±0.05 dB
THD + Noise	0.03% @ 1 kHz at nominal level
S/N	>90 dB, balanced, at maximum output (21 dBu), unweighted
Crosstalk	<-80 dB @ 1 kHz, fully loaded
Stereo channel separation	>80 dB @ 1 kHz
CMRR	>75 dB @ 20 Hz to 20 kHz

AUDIO INPUT

Number / Signal type	12 stereo, balanced/unbalanced
Connectors	(12) 3.5 mm captive screw connectors, 5 pole
Impedance	>10k ohm, balanced/unbalanced, DC coupled
Nominal level	0 dBV (316 mV), 0 dBu (775 mV)
Maximum level	+19.5 dBu, (balanced or unbalanced) at 0.01% THD+N
Input gain adjustment	-18 dB to +24 dB, adjustable per input by RS-232/422, Ethernet, or front panel

NOTE: 0 dBu = 0.775 Vrms, 0 dBV = 1 Vrms, 0 dBV ≈ 2 dBu

AUDIO OUTPUT

Number / Signal type	8 stereo, balanced/unbalanced
Connectors	(8) 3.5 mm captive screw connectors, 5 pole
Impedance	50 ohms unbalanced, 100 ohms balanced
Gain error	±0.1 dB channel to channel
Maximum level (Hi-Z)	>+21 dBu, balanced or unbalanced at 0.10%THD+N
Maximum level (600 ohm)	>+15 dBm, balanced or unbalanced at 0.10%THD+N
Output volume range	0 to 64 (-75.8 dB to 0 dB) in 1 dB increments from steps 1 to 64, 12 dB increment from step 0 to 1

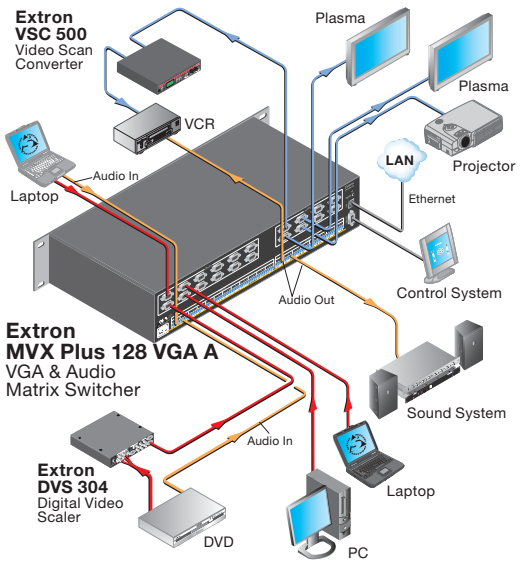
CONTROL / REMOTE – SWITCHER

Serial control port	1 RS-232 or RS-422, 9-pin female D connector
Baud rate and protocol	9600 (default), 19200, 38400, 115200 baud (adjustable); 8 data bits, 1 stop bit, no parity Serial control pin configurations RS-232: 2 = TX, 3 = RX, 5 = GND RS-422: 2 = TX-, 3 = RX-, 5 = GND, 7 = RX+, 8 = Tx+
Ethernet control port	1 RJ-45 female connector
Ethernet data rate	10/100Base-T, half/full duplex with autodetect
Ethernet protocol	ARP, DHCP, ICMP (ping), TCP/IP, Telnet, HTTP
Program control	Extron's control/configuration program for Windows® Extron's Simple Instruction Set (SIS™) Microsoft® Internet Explorer, Telnet

GENERAL

Power	100 VAC to 240 VAC, 50/60 Hz, 30 watts, internal, universal
Temperature / Humidity	Storage: -40 to +158 °F (-40 to +70 °C) / 10% to 90%, noncondensing Operating: +32 to +113 °F (0 to +45 °C) / 10% to 90%, noncondensing
Cooling	Convection, vented
Rack mount	Yes, with included brackets
Enclosure type	Metal
Enclosure dimensions	3.5" H x 19.0" W x 9.4" D (2U high, full rack wide) 8.9 cm H x 48.3 cm W x 23.9 cm D (Depth excludes connectors. Width includes rack ears.)
Product weight	14.4 lbs (6.5 kg)
Shipping weight	21 lbs (10 kg)
DIM weight (International)	25 lbs (12 kg)
Vibration	ISTA 1A in carton (International Safe Transit Association)
Listings	UL, CUL
Compliances	CE, FCC Class A, VCCI, AS/NZS, ICES
MTBF	30,000 hours
Warranty	3 years parts and labor

NOTE: All nominal levels are at ±10%. Specifications are subject to change without notice.



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